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eliminates or reduces the wire itself and the eventual earthing from contributing to the initial walk-up shock or subsequent shock by a static-charged user upon making contact with the contact element.

Circuit 26 shown in Figure 2d is used in connection with multiple contact elements or surfaces  $26s' \dots 26s^n$  and all such elements include a resistor, such as resistor  $26R' \dots 26R^n$ , each of which is connected to conductor 26c which has a resistor 26R and can include an inductor 26L as well connected to ground element 26E. Resistors 26s reduce the number of electrons immediately available at each individual contact element or contact surface to neutralize a user charge.

Circuit 28 is shown in Figure 2e and includes a resistor 28R located in conductor 28c adjacent to contact element 28S.

It is also noted that additional circuit elements can be included in conductor c as performance demands. Thus, as shown in Figure 2f, circuit 30 includes a capacitor 32 while circuit 34 in Figure 2g includes a transistor 36. Both of these circuit elements are in addition to the above-discussed resistors and inductors.

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20 Figure 2h shows a system 37 for protecting a person from surprise or uncomfortable electrostatic discharge (ESD) and which comprises: an electrostatic discharge conducting contact element 37S which is in time-extended contact with a person who is to be protected from electrostatic discharge when in use; a

control circuit 37C electrically connected to contact element 37S by a conductor 37e. The control circuit includes a first resistor element 37R which is in series with the contact element and which has a resistance which will drain some, but not all, ESD from contact element 37S. The system further includes a ground circuit 37G which is electrically associated with control circuit 37C either by electrical conductors or by over-the-air signals such as radio signals. Resistor 37R is physically located near contact element 37S, such as within one foot thereof. Resistor 37R can have a value that ranges from as low as one megohm to as high as more than one hundred megohms. As shown in Figure 2h, circuit 37C further includes a second resistor 37R' that is located physically close to ground circuit 37G to prevent shock associated with an improperly grounded circuit, and can have a value in the range of one megohm.

As shown in Figure 2h, a jack connector 37j can be used to electrically connect circuit 37C to contact element 37S. Thus, if contact element 37S is a computer element, such as a keyboard, logic circuit, mouse, mouse pad or the like, circuit 37C can be releasably connected thereto using jack 37j. As will be understood from this disclosure, any of the circuits shown herein can be releasably connected to a contact element using a jack. Thus, while a jack may not be specifically shown in each figure, it is to be understood that such a releasable connection can be used between the circuit and the contact element. The specific